#### STATEMENT OF

# JOHN B. NATHMAN, REAR ADMIRAL, U.S. NAVY

## DIRECTOR, AIR WARFARE DIVISION

BEFORE THE

## SEAPOWER SUBCOMMITTEE

OF THE

## SENATE ARMED SERVICES COMMITTEE

ON

# AIR WARFARE SYSTEMS FOR THE $21^{\rm ST}$ CENTURY 23 MARCH 2000

## Introduction

Madam Chairwoman, distinguished members of the Seapower Subcommittee, thank you for the opportunity to discuss Air Warfare systems for the 21<sup>st</sup> century. I would like to update you on the state of Naval Aviation and our major initiatives, with particular emphasis on the systems and plans to sustain and modernize our Maritime Patrol and Reconnaissance and Helicopter forces.

When I appeared before this Subcommittee last year, I spoke of how world events and the leading role played by Naval Expeditionary forces in responding to crises pointed to an increasing demand for what the Navy-Marine Corps team and Naval Aviation, in particular,

bring to the fight. Clearly in this past year, this trend has continued--even accelerated--as our forward-deployed Carrier Battle Groups, Amphibious Ready Groups and other Naval Expeditionary forces have served the Nation's global interests time and again. Across the spectrum from humanitarian operations and engagement, to theater contingency and sustained combat, your Sailors and Marines stand ready to influence, directly and decisively, events ashore from the sea.

In the last decade, the rate at which Naval Expeditionary forces were called upon to respond to crises increased from less than six per year to nearly once every three weeks. Since December 1998, we have had seven Battle Groups and Carrier Air Wings engaged in combat. USS ENTERPRISE and USS CARL VINSON teamed to provide the preponderance of striking power during the four days of Operation Desert Fox in Iraq. They, along with THEODORE ROOSEVELT, CONSTELLATION, KITTY HAWK, JOHN F. KENNEDY and currently JOHN C. STENNIS Battle Groups, have steadfastly enforced the no-fly zone in Iraq through Operation Southern Watch. Finally, THEODORE ROOSEVELT Battle Group and embarked Carrier Air Wing EIGHT, along with land-based Maritime Patrol and Reconnaissance Aircraft, expeditionary EA-6B Prowler squadrons, Marine F/A-18D Hornet squadrons, AV-8B Harriers from KEARSARGE Amphibious Ready Group and helicopters from KEARSARGE and INCHON Mine Countermeasures Squadron, combined to fly over 3,000 combat sorties as part of the air campaign in Kosovo. ROOSEVELT Battle Group and Carrier Air Wing EIGHT were engaged in combat just nine days after completing air wing Carrier Qualifications (CQ) off the Virginia capes and less than 24 hours after entering the 6<sup>th</sup> Fleet area of responsibility.

Our remarkable success in these operations validates the requirement for sustained, unconstrained and forward Naval Expeditionary forces. The lion's share of the credit rests with the Sailors and Marines who serve with distinction and honor—meeting the challenge of increased operations tempo despite the effects of a prolonged drawdown of personnel and equipment. I appreciate the actions by members of this Subcommittee, the Senate and the Administration to meet our most pressing personnel and readiness needs. The positive impact of last year's pay triad and compensation initiatives, as well as the Kosovo Emergency Supplemental and Defense Authorization Bills, is being felt in the Fleet. As we focus on taking care of our people and protecting and sustaining readiness to meet today's commitments, I am mindful that we have made difficult choices to balance these against the modernization and recapitalization efforts necessary to ensure Naval Aviation and Naval Expeditionary forces remain capable of meeting the Nation's security requirements into the 21st century and beyond.

# **Carrier-based Tactical Aircraft**

The F/A-18E/F Super Hornet remains our number one warfighting priority. Key to our strategy of increasing combat capability at an affordable cost is the pending multi-year procurement strategy. Due for approval in May, multi-year procurement will save over \$700M compared with single year procurement—the equivalent of buying 219 aircraft for the price of 203. The aircraft incorporates up to a 40 percent range improvement over the F/A-18C in certain flight regimes while at the same time doubling the weapons load when configured for close air support missions. A reduced radar cross section, coupled with robust countermeasures and new-generation combat-proven precision standoff weapons, will also result in the Super Hornet being

more survivable than current strike-fighters. The establishment last year of VFA-122, the Super Hornet Fleet Replacement Squadron, and the recent successful completion of Operational Evaluation are significant steps toward the F/A-18E/F's introduction to the Fleet and first operational deployment scheduled for 2002.

To ensure Super Hornet remains a 1<sup>st</sup> class warfighter we are committed to a package of advanced capabilities designed to outpace the threat in the 21<sup>st</sup> century. These programs include the Advanced Electronically Scanned Array (AESA) radar, Advanced Targeting Forward-Looking InfraRed (ATFLIR), Shared Reconnaissance Pod (SHARP), Integrated Defense Electronic Counter-Measures (IDECM) system, and the Joint Helmet Mounted Cueing System (JHMCS) and associated AIM-9X air-to-air missile.

The EA-6B is America's sole airborne support jammer. The tremendous demand for the Prowler's unique capabilities to support the air campaign in Kosovo, in addition to meeting other on-going CINC requirements, highlights the continued importance of airborne Electronic Attack. Currently our EA-6B fleet is being modified to a common configuration and equipped with new, improved jamming pods. The Prowler will begin receiving the new Improved Capability III (ICAP III) upgrade in the FYDP. ICAP III provides significant improvement to the EA-6B's receivers, which in turn will enhance jamming performance. It also includes increased battle space connectivity critical to Network-Centric Operations. The Navy is also leading a two-year joint Analysis of Alternatives to determine the appropriate follow-on to the EA-6B platform.

The E-2C Hawkeye performs critical airborne command and control for our expeditionary forces. E-2C missions include early warning of approaching enemy air and surface units through area surveillance, intercept, search and rescue coordination, communications relay and strike/air traffic control. PB-01 includes \$321M for 5 aircraft, while the E-2C multi-year program is expected to save a total of \$204M. Programs to modernize the E-2C include the Radar Modernization Program (RMP) and Cooperative Engagement Capability (CEC). RMP offers significantly improved capability against small and overland targets, while incorporation of airborne CEC in the E-2 will provide a revolutionary improvement in our ability to detect, track and engage targets in concert with CEC-capable surface combatants.

Our program for the next generation of aircraft carriers, known as CVNX, relies on a three-stage evolutionary strategy to a new class of carrier for the future. CVN-77, the final Nimitz Class carrier, will feature a new combat system and integrated island. CVNX-1 will have a completely redesigned power plant, electrical distribution systems and the Electro-Magnetic Aircraft Launch System (EMALS). CVNX-2 will complete the evolution, combining innovations from both of the previous two carriers. In each step, we plan to achieve incremental reductions in total ownership costs and manpower requirements, culminating in CVNX-2 in a total reduction of 1200 to 1500 billets and a 20 to 30 percent reduction in total ownership costs.

## **Maritime Patrol and Reconnaissance**

Maritime Patrol and Reconnaissance Aircraft continue to fulfill critical warfighting roles including undersea warfare; surface warfare; electronic warfare; intelligence, surveillance and

reconnaissance; maritime interdiction; littoral strike and targeting. Enhanced connectivity and integration into Battle Group CONOPs will place an even greater premium on these valuable platforms as we move into the 21st century. As the inventory ages, we recognize that sustaining appropriate force structure for both the P-3C and EP-3E aircraft is vital, as is modernizing mission systems and determining requirements for a follow-on platform.

A key modernization effort for both the active and reserve P-3C fleet is the replacement of obsolete mission systems in our older Update II and II.5 aircraft so as to give us a uniform Update III anti-submarine warfare (ASW) capability across the force. Known as the Block Modification Upgrade Program or BMUP, 25 kits are funded across the FYDP in PB-01 against a total requirement of 48. CNO has included seven additional kits as part of his unfunded requirements for FY01 at a cost of \$54.7M.

Beyond this critical enhancement to the P-3 fleet's ASW capability, there is funding for 57 Anti-Surface Warfare (ASUW) Improvement Program (AIP) kits through PB-01 against a documented requirement for a total of 146. AIP is a suite of sensor upgrades that significantly and rapidly increases capabilities not only in ASUW, but also for Over-the-Horizon Targeting (OTH-T); Command, Control, Communications, Computers and Intelligence (C4I); and survivability. In Kosovo, AIP-modified P-3s demonstrated their value in combat while conducting littoral surveillance, strike and sea control missions. By protecting the Battle Group from surface and sub-surface threats, these P-3s, in conjunction with organic helicopter assets, allowed the Carrier Air Wing's tactical aircraft to focus exclusively on power projection. We would like to see even more P-3C aircraft upgraded to AIP and CNO has indicated four

additional AIP kits at \$56.2M for the active force and three at \$42M for the reserves as another unfunded priority for FY01.

Our force of EP-3E electronic warfare and reconnaissance aircraft constitute a Low Density High Demand (LDHD)-type asset. Forward-deployed to meet critical CINC Intelligence, Surveillance and Reconnaissance collection requirements, the primary mission of these aircraft is to detect and report tactically significant communication and radar signals, then associate these signals with enemy warfare activity or potentially hostile units. We currently have 11 aircraft against a requirement of 12 deployable to meet worldwide commitments. The 12<sup>th</sup> aircraft, undergoing a two-year process to convert it from a P-3C to EP-3E configuration, is scheduled to be ready in FY02.

The Sensor System Improvement Program (SSIP) for upgrading the EP-3E force is fully funded. System procurement is complete and funding for installation completes in FY01. SSIP integrates and installs new tactical communications, ESM and special signal processing and exploitation systems. Enhanced capabilities include communications and antenna improvements, as well as low band collection and exploitation. Four aircraft have been upgraded to date. In December 1999, SSIP Operational Testing (OT) was temporarily interrupted due to problems encountered in two of the sensor systems. These problems have been corrected and OT is scheduled to resume next week.

The SSIP upgrade is a critical warfighting enhancement to keep the EP-3E on the cutting edge as we enter the 21st century, however taking aircraft out of service to complete the

modification has placed acute pressure on the remaining assets to meet worldwide commitments. As a result, we have identified a requirement to procure four additional EP-3E pipeline aircraft to facilitate completion of SSIP and follow-on upgrades. One of these aircraft is funded in PB-01 in FY03 at a cost of \$61M. CNO has articulated the need to move funding for this aircraft into FY01 as an unfunded requirement.

A second major EP-3 modernization effort is the Joint SIGINT Avionics Family (JSAF) Block Modernization Program (JMOD). The JMOD program is designed to modify SIGINT systems to meet the requirement to migrate to Joint Avionics Standards Architecture. A series of three rolling block modifications build to keep the EP-3E ahead of the projected threat. Block 1 upgrades include improved on-board data handling and processing. Block 2 adds a low band subsystem and improves data fusion capability including Common Data Link, which provides crucial connectivity for Battle Group operations in a Network-Centric Warfare environment. Finally, Block 3 adds a precision targeting system and may include electro-optic, infrared and radar system upgrades. The portion of the JMOD program occurring within the FYDP is fully funded in PB-01.

In addition to these modernization efforts for the P-3C and EP-3E platforms, we are pursuing an Analysis of Alternatives to determine the best solution for a P-3 follow-on, known as the Multi-mission Maritime Aircraft or MMA. As the AoA goes forward, we are examining options for a Service Life Extension Program to sustain adequate warfighting force structure until MMA enters service.

#### **Helicopters**

Our Helicopter Master Plan (HMP) is the linchpin of a modern, total force solution to increase Fleet capability and lethality in the littorals. The neck-down of our helicopter force from seven type/model/series to two, the CH-60 Sierra and the SH-60 Romeo, will greatly expand warfighting capability while significantly reducing costs. Capitalizing on efficiencies of singular maintenance, logistics, and training pipelines, the HMP satisfies the needs of both our active and reserve forces.

Both helicopter programs have met significant milestones this past year. The SH-60R, which conducted its first flight on 11 December 1999, will extend and increase the capabilities of the surface combatant in all mission areas. This Battle Group asset, optimized for littoral operations with its advanced Multi-Mode radar, an active dipping low frequency sonar system, and FLIR/Hellfire system, will provide significant warfighting enhancements over our current force of SH-60Bs and our carrier-based SH-60Fs.

We will introduce the CH-60S in FY02 and accelerate the retirement of aging CH-46D helicopters by approximately 28 months. The CH-60, which completed its first flight on 27 January 2000, will fill myriad multi-mission helicopter requirements, performing passenger/mail/cargo transport, vertical replenishment, Search and Rescue, and Combat Search and Rescue in the years ahead. In addition, it has recently completed Phases I and II of its Airborne Mine Counter-Measures (AMCM) Proof of Concept testing and has demonstrated the ability to perform all required AMCM mission profiles.

PB-01 funds procurement of 91 SH-60R and 99 CH-60S aircraft through the FYDP.

Additionally, CNO has identified unfunded requirements for helicopters to include five SH-60Rs at \$145.5M, four active CH-60Ss at \$83.7M and four reserve CH-60Ss also at \$83.7M for FY01.

#### **Summary**

America's global security interests, recent world events and on-going operations in the Arabian Gulf and Balkans are validating both our past decisions with regard to the right aircraft, weapons and personnel, as well as our commitment to sustaining the readiness of our forces, which now routinely deploy in harm's way. Forward presence, maritime dominance and decisive landward power projection in the littorals require aircraft and weapons systems capable of responding rapidly to a wide range of missions in an increasingly complex and demanding threat environment. As we enter the 21st century, we must plan, invest and equip our expeditionary forces so they are shaped to bring overwhelming force to the fight. Naval Aviation continues to make extraordinary contributions to the Nation's defense. We are committed to keeping Naval Aviation robust and relevant and we will keep faith with our warfighters in the Fleet to ensure they have the aircraft and equipment necessary to go into combat and prevail. Thank you, very much, for the opportunity to speak to you today; I look forward to answering your questions.